

SOCIAL REPRESENTATIONS OF AMERICAN HISTORY AND ACADEMIC
ENGAGEMENT AND PERFORMANCE OF AFRICAN AMERICAN STUDENTS

A Thesis

by

LUYEN THI THAI

Submitted to the Office of Graduate and Professional Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Chair of Committee,	Phia S. Salter
Committee Members,	Adrienne R. Carter-Sowell
	Mary E. Campbell
Head of Department,	Douglas W. Woods

May 2014

Major Subject: Psychology

Copyright 2014 Luyen Thi Thai

ABSTRACT

Previous research has shown that social representations of one's social groups can influence academic outcomes for racial and ethnic minority students in the United States. Other research has found that representations of American history have implications for identity and can impact the way people perceive and explain identity-relevant events. The current research uses a cultural psychological perspective to examine the consequences of exposure to social representations of American history on African American college students' performance. It is hypothesized that history facts with positive implications for identity will positively influence performance for African American students, and history facts with negative implications for identity will negatively impact performance.

The pilot study results did not support the hypotheses potentially due to the small African American sample size. The second study tested the same hypotheses with a larger sample of African American students by recruiting students from a historically Black university. Results did not support the main hypotheses. However, results revealed that high math and racial identity are positively related to performance. Other findings suggest that history conditions moderated the relationship between racial identity and saliency of stereotypes about African Americans. Racial ideologies correlated with academic measures differently across history conditions. This study has potential implications for African American students' academic identity and engagement in academic settings. In particular, academic settings that promote a positive sense of

identity through history teachings can foster positive academic consequences for African American students.

ACKNOWLEDGEMENTS

I would like to thank my Committee Chair Dr. Phia Salter, and the advisory members Dr. Adrienne Carter-Sowell and Dr. Mary Campbell. They have generously given their time, experience, and friendly support through every stage of this process. I am also indebted to the many wonderful professors and colleagues who have challenged, supported, and guided me throughout my academic journey.

I would also like to thank the McNair Scholars Program at Cleveland State University and its representatives for their encouragement and support throughout my pursuit of higher education. Without their friendship and assistance along the years, I would not have been able to reach this milestone.

Last but not least, I would like to express my deepest appreciation and love for my parents, Pham Thai and Dieu Nguyen. They have taught me the importance of education and have empowered me to use knowledge to create something that will empower others. This piece of work is dedicated to them.

TABLE OF CONTENTS

ABSTRACT	kk
ACKNOWLEDGEMENTS	kx
TABLE OF CONTENTS	x
LIST OF TABLES	xkk
1. INTRODUCTION AND LITERATURE REVIEW	1
1.1 The Academic Achievement Gap	1
1.2 Addressing Underperformance in Social Psychological Research	1
1.3 Social Psychological Interventions	3
1.4 Limitations of Previous Interventions	5
1.5 A Cultural Psychology Framework	7
1.6 Social Representations and Identity	8
1.7 Social Representations of History and Identity	9
2. PURPOSE AND OBJECTIVES OF CURRENT STUDIES	12
3. PILOT STUDY	13
3.1 Participants	13
3.2 Procedure and Materials	13
3.3 Results and Brief Discussion	14
4. MAIN STUDY	18
4.1 Participants	18
4.2 Procedures	18
4.3 Additional Materials	18
4.4 Results	20
5. SUMMARY AND CONCLUSIONS	28
5.1 General Discussion	28
5.2 Limitations and Future Directions	31
5.3 Conclusions	33
REFERENCES	35
APPENDIX A	42

APPENDIX B	46
APPENDIX C	51
APPENDIX D	52
APPENDIX E	54
APPENDIX F	55
APPENDIX G	56
APPENDIX H	58
APPENDIX I	60
APPENDIX J	61

LIST OF TABLES

TABLE	Page
1 ANOVA Results for Students' Perceptions of History Facts in Pilot Study ($n = 34$).....	16
2 ANOVA Results for Students' Perceptions of History Facts in Main Study	22
3 Correlations, Means and Standard Deviations of Variables for Mainstream Condition	24
4 Correlations, Means and Standard Deviations of Variables for Achievement Condition	24
5 Correlations, Means and Standard Deviations of Variables for Barriers Condition	25
6 Summary of Multiple Regression Analyses of Stereotype Concept Activation	26

1. INTRODUCTION AND LITERATURE REVIEW

1.1 The Academic Achievement Gap

The achievement gap between African American and White American students in academic performance in the United States has been a social issue that concerns educators, social scientists, and policy makers as well as students and their parents. African American students who are academically at-risk earn lower school grades compared to their White American peers and are more likely to drop out of high school (Vanneman, Hamilton, Baldwin Anderson, & Rahman, 2009; United States Department of Education, 2013). Moreover, African American students' average scores on college entrance exams consistently trail behind those of White Americans and other ethnic and racial groups (College Entrance Examination Board, 2011). Many explanations have been proposed for this Black-White education achievement gap, such as family income, parental education, classroom size, teacher-student relations, demographics school racial makeup, and educational policies (Jencks & Phillips, 1998). All of these factors contribute to the academic performance gap, and are focused on by educators, researchers, and policy makers when developing interventions to minimize the academic achievement gap.

1.2 Addressing Underperformance in Social Psychological Research

In social psychology, factors such as stress and anxiety stemming from being a member of a negatively stereotyped group can also account for the academic performance gap among racial and ethnic minorities in the United States (Steele & Aronson, 1995). Being a member of a stereotyped minority group can challenge

individual self-view when confronted with negative stereotypes about one's group in domains that deem important to their self-concept. Such identity threat can be detrimental to psychological functioning, including the ability to process and perform complex tasks that they might otherwise do well on (Steele, Spencer, & Aronson, 2002). For instance, when an African American student perceives being judged based on the negative stereotype regarding the intellectual ability of his or her racial group, this poses a threat to identity. This psychological threat acts like a patrol officer reminding the student to regulate his or her behavior to not make mistakes that can confirm the stereotype. The pressure to self-regulate and monitor his or her responses causes stress and can inadvertently depress performance for the student. Stereotype threat has been tested in numerous research studies across a variety of domains including women contending the negative stereotype of math ability (Spencer, Steele, & Quinn, 1999), low socioeconomic status student dealing with the stereotype of verbal ability (Croizet & Claire, 1998), and White American students facing the stereotype that Asians are superior in math (Aronson et al., 1999; see Inzlicht & Schmader, 2012, for a review). Because stereotype threat is contingent on understanding how the context might highlight these various identity-based threats, implied in many of these studies is the idea that stereotype threat can occur with or without explicit prejudice or discrimination perpetrated against them, though the effect may be stronger with overt prejudice and discrimination. This idea supports the notion that the social environments afford and foster stereotypes in forms of cultural representations that are (re)produced everyday by

human engagements and actions to elicit stereotype threat for stigmatized group members.

1.3 Social Psychological Interventions

Social psychological interventions focusing on alleviating stereotype threat have yielded promising results on improving performance of African Americans and other stigmatized groups when under evaluative settings involving complex tasks (e.g., Cohen, Garcia, Aphel, & Master, 2006; Marx, Ko, & Friedman, 2009; Oyserman, Terry, & Bybee, 2006; Walton & Cohen, 2003). Ethnic minority students who feel academically inadequate because they perceive that their group is being devalued in the academic domain can restore their self integrity by affirming self-resources unrelated to the domain of threat. Such self affirmation involves thinking about important aspects of the self that is irrelevant to the threat, or engaging in activities that make salient important areas of the self unrelated to the threatening situation (e.g., the importance of family and self-defining skills; Steele, 1988; Cohen et al., 2006; Sherman et al., 2013). By affirming self-worth in personally important areas not related to the provoking threat, students are able to see that their self-worth is not contingent on evaluative implications of the threatening situation. Rather, they can see themselves globally as a good and intelligent person in order to restore their sense of self-integrity. As a result, students with a global perception of adequacy are better able to respond to the threat with an open and evenhanded manner.

Another intervention involves minority students thinking of future-orientated selves that are associated with doing well in school, linking to behavioral strategies that

make identity-relevant goals more accessible and attainable (Oyserman, Bybee, Terry, & Hart-Johnson, 2004). These academic possible selves are important to the self-concepts of students because they link past, current, and future selves into a coherent identity-relevant story. Being able to recognize any discrepancy between the past, present, and future selves directs attention to self-regulatory behavioral goals that can reduce the discrepancy (e.g., “I am not doing well in algebra this term, but I will do better next year by going to tutoring sessions;” Oyserman, Terry, & Bybee, 2006). Another way that thinking about possible academic selves might reduce identity threat for students is by forming a congruency between their social identity and academic identity. That is, when a minority student sees that their racial and ethnic identity is congruent and not in opposition to their academic identity, they are more likely to approach and attain goals that are more likely to lead to academic success (Oyserman & Fryberg, 2006).

Research has also looked at the role of group identification in reducing the effects of identity threat for stigmatized minority students (Marx, Ko, & Friedman, 2009). Activation of individual’s social self orientation can potentially “turn off” threat when learning about in-group individuals who have excelled on the stereotyped task. Exposure to those role models can provide students with stereotype-inconsistent information, thereby reducing impression-related concerns in evaluative settings and can positively impact performance. In other words, when the social self is accessible under stereotype threat, students experience an assimilative social comparisons effect whereby their self-evaluations and performance mirror those of the successful in group members (i.e., an assimilation effect; Marx, Ko, & Friedman, 2009).

1.4 Limitations of Previous Interventions

The above mentioned interventions heavily focused on changing the stigmatized individual's psychological approach to dealing with stereotype threat. The emphasis has been on the individual level of analysis, specifically what happens in the minds and brain structures of individuals and behavior as an end product. For instance, self affirmation (Steele, 1988) involves students thinking about personally self-defining values to create a global sense of self- integrity and adequacy in order to alleviate threat in academic settings. The possible selves intervention (Oyserman et al., 2004) states that students have to draw upon potential selves that they aspire to be in order to create goals that are conducive for academic success. Both of these strategies require the individual to either draw upon already held positive personal qualities or potential qualities that one can obtain for academic growth. In other words, the intervention process is focused on changing individuals' thought processes and their behavioral responses to the provoking threat, instead of focusing on potential ways to change the external environments that also contribute to the threat.

Even though the assimilation effect focuses more on the social context, whereby students draw inspiration from role models in the environment, students are still drawing on individual cases to assess their performance against. There is an emphasis on the individual level where the focus is on the exceptional individuals and their accomplishments and not necessarily the contexts in which made their accomplishments possible. Furthermore, comparing oneself to highly successful group members can also have the opposite effect of depressing performance. In particular, if the role models are

seen as outliers in terms of talents and skills who succeed in a perceived unattainable field, then individuals may feel inadequate in comparison to those exemplars (Lockwood & Kunda, 1997). Individuals may then contrast their behaviors to the exemplars, and in this case, students may underperform upon comparing themselves to exceptional individuals.

Although the social psychological interventions yield many promising results for closing the educational achievement gap, a cultural psychological perspective argues that mainstream social psychology inclination to focus on the psychological or the individual level of analysis can be limiting and incomplete. The mainstream approach starts at the psychological level (e.g., experiencing stereotype threat) and ends at the behavior of the individual (e.g., performance increase as a result of drawing upon personally-valued areas). To gain a better understanding of human behaviors and psyche, one must also take into account the sociocultural contexts that shape and are being reshaped by human engagement and interactions (Adams & Markus, 2004; Kitayama & Markus, 1999; Markus & Hamedani, 2007; Shweder, 1990). Psychological experiences and behaviors are not products situated in just the minds and brain structures of individuals. Rather, they are also embodied in the cultural environments external to the individual. This idea is consistent with stereotype threat theory, which states that certain environmental cues can make group identity or the associated group stereotype personally salient, leading to a cognitive activation of the identity and associated stereotypes to induce identity threat in the minds of individuals (Steele & Aronson, 1995). The current study uses a cultural psychological framework to investigate the

consequences of exposure to different social representations of American history on the academic engagement and performance of African American college students.

1.5 A Cultural Psychology Framework

A cultural psychological framework states that everyday behaviors of individuals create cultural contexts that afford and reflect certain realities. The cultural contexts condition human actions to further create realities that reflect beliefs and desires of individuals and communities. This is, the mind and cultural context mutually constitute one another (Adams & Markus, 2004; Kitayama & Markus, 1999; Markus & Hamedani, 2007; Shweder, 1990). Previous research has applied the cultural psychological framework in examining how the cultural contexts of American universities affect students from different social class backgrounds (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). Stephens and colleagues (2012) found that the middle-class cultural norms of independence in American universities advantage students from middle class backgrounds and disadvantage students from working class backgrounds, who are disproportionately first-generation college students from a low socioeconomic position. They found that the cultural spaces in American universities endorse and value norms of independence – the focus on individual development, personal choice, and self expression – that create a cultural mismatch for students from working class backgrounds who were raised in environments that promote an interdependent modes of being prior to attending college. Students from working class backgrounds have limited capital resources for social mobility along with other environmental constraints that limit opportunities for choice, control, and influence. Because of social and economic

limitations, they are encouraged to recognize their place in the social hierarchy, to follow social norms and rules, and to be mindful of their relationships with people whom they rely on for support and survival.

When students who have been immersed in an interdependent culture of the working-class environment engage with the independence culture of the American university, the cultural mismatch undermines academic performance for those students. This was indicated by the lower cumulative grade point average of first-generation college students from working-class backgrounds in comparison to continuing-generation college students from middle class backgrounds (Stephens et. al, 2012). These findings are consistent with previous work that suggests that contending with a cultural environment that provokes a cultural mismatch with the way one is socialized can trigger a sense of discomfort and belonging uncertainty for students, which in turn can negatively impact their academic engagement and performance (e.g., Murphy, Steele, & Gross, 2007; Walton & Cohen, 2007). While this study focused on independent and interdependent modes of being as shaped by social class backgrounds that interact with academic settings in American universities to explain the social class achievement gap, it also highlights the importance of considering the cultural environment when examining academic performance.

1.6 Social Representations and Identity

Cultural psychologists have also considered social representations as a building block for making sense of the self in an academic context (Fryberg & Markus, 2007; Fryberg & Townsend, 2008; Oyserman & Markus, 1993). Social representations refer to

the widely shared ideas, meanings, and understandings of the world (Hardin & Higgins, 1996). They provide information— whether accurate, complete, or incomplete — about individuals and the social groups to which they belong. As people engage with social representations of their social group, they must also contend with the meanings and ideas that they and other people attach to those representations. In other words, social identities and their respective social representations have consequences for everyday experiences (Fryberg & Townsend, 2008; Moya, 2002). For example, contending with negative representations of one's group in the media or in the cultural environment can negatively impact performance as depicted in the stereotype threat literature (Inzlicht & Schmader, 2012). Another example is that limited or invisible representations of one's social groups can constrain the images of the future possible selves that one can become (Fryberg, Markus, Oyserman, & Stone, 2008; Oyserman et al., 2004).

1.7 Social Representations of History and Identity

Considering the self and identity information that social representation provide, social representations of American history in the classroom could then have important consequences for African American students' engagement and performance. In particular, minorities receive little mention in history books, and unpleasant incidents in American history such as slavery and genocide are either written out or sanitized to fit the dominant narrative (Blatz & Ross, 2009; Loewen, 1995). People engaging with history about their group may have a stronger sense of who they are as a group of people (Liu & Hilton, 2005). For example, commemoration of atrocities that have happened to one's group fosters a sense of in-group cohesion and identity partly because the

particular story is unique to their group. Individual's sense of self-integrity can also be affected by history, depending on whether the narrative portrays a positive or negative image of the group; notably, narratives that glorify the group may increase personal self-regard, and narratives that are negative may decrease personal self-regard. Because of this preference for positive self-regard, people tend to distort their memory in ways that glorify their groups (Kurtis, Adams, and Yellowbird, 2010). Thus, history is a narrative of the past that fosters understanding for personal and collective identity.

At a collective level, groups tend to emphasize episodes that highlight the superiority of their group. Because the dominant group tends to have power on the reproduction of history, historical narrative is often tainted by the perspective of the dominant group. The dominant group often writes history in a way that glorifies the group and dismisses or distorts certain chapters of history that are self-damaging (Baumeister & Hastings, 1997). For example, mainstream representations of U.S. history tend to be heroic or celebratory narratives that typically highlight achievements of White American people (Loewen, 1995). Thus, history reflects collective remembering of the past that is relevant to individuals' personal and collective identities.

Current related research has shown that social representations of Black history (such as photographs, bulletin boards, history facts and myths) have implications for collective memory, identity, and intergroup relations (Salter, 2010). Salter (2010) found that White American participants who were exposed to facts containing themes of racial barriers in American history perceived more racism in ambiguous events and endorsed anti-racism policy to a greater extent than did participants who read facts about

celebratory achievements of African Americans or facts with no representation of minorities. Her work suggests that social representations of the past are not neutral in that exclusion or inclusion of certain collective narratives can impact the way people perceive and explain identity-relevant events.

2. PURPOSE AND OBJECTIVES OF CURRENT STUDIES

The proposed study examines African American college students' academic engagement and performance upon exposure to social representations of American history. This study uses the idea of social representations as a building block for making sense of the self in relation to the social worlds one belongs to (Oyserman & Markus, 1993). Based on social representation theory and previous research, I propose that representations of American history have consequences for African American students' academic identity. I predict that 1) history that is identity-consistent and contain positive social comparisons can positively impact performance; therefore, exposure to “achievement” facts of African American history will increase academic performance (academic identity) for those identified with being African American; 2) history that is identity-consistent with portrayals of obstacles faced by African Americans can have a dual effect on performance, depending on students' perception of the “barriers” facts as motivating or de-motivating; and 3) history that is identity-inconsistent would negatively impact performance; therefore, exposure to “mainstream” history will decrease academic performance for those identified with being African American.

Two studies are discussed. The first is a pilot study at a large southern, predominately White university. This study was conducted to see if there were any effects on performance after history exposure among African American students. The second study was conducted to test the same hypotheses with a larger sample of African American students by recruiting students from a historically Black university.

3. PILOT STUDY

3.1 Participants

Thirty-four undergraduate students who identified themselves as African or Black American (Female = 28, Male = 6; $M_{\text{Age}} = 19.00$; $SD = 1.07$) participated from a predominately White university. They were either recruited from the psychology research participation pool or through Black student organizations on campus. Students recruited from the research participation pool were given course credit for their time. Those recruited from Black student organizations were paid \$15 - \$20 for their participation.

3.2 Procedure and Materials

History Facts. Participants were randomly assigned to one of three conditions that contain different themes of American distant and contemporary history. In the *Mainstream fact* condition, participants read 12 facts from which African Americans and other ethnic minority groups were absent. A sample items included, “Manifest Destiny was a phrase used by leaders and politicians in the 1840s to explain continental expansion by the United States. They believed America had a divine right to become a transcontinental nation.” See Appendix A for all facts used in study.

In the *Achievement fact* condition, participants read 12 facts that highlight the achievements of Black Americans popular in mainstream representations of Black History; sample item included, “The Civil Rights Act of 1964 was landmark legislation in the United States that outlawed discrimination based on race, color, religion, sex, or national origin.”

In the *Barriers fact* condition, participants read 12 facts that mention racism-relevant incidents that are familiar to people (both White and Black) who have been immersed in African American cultural worlds; sample item included, “Dred Scott, a slave, sued for his freedom in 1847. The Supreme Court ruled that he was property, not a citizen of the United States and therefore could not sue in federal court.”

Following each fact, participants rated how familiar they are with the fact, how relevant is the fact to their identity, how motivating is the fact, and the importance of the fact for teaching American history.

Logic Test. A test containing logic problems was used to assess their performance. The test started with a paragraph followed with questions that could be answered using the clues from the paragraphs. Participants had 15 minutes to complete 24 problems. Performance is based on the ratio of correct responses out of the number of problems attempted by the students. See Appendix B for logic test.

3.3 Results and Brief Discussion

A one-way analysis of variance (ANOVA) was conducted to evaluate differences in participants’ perceptions of the history facts among the conditions (see Table 1 for means). The ANOVA results demonstrate significant differences in personal identity relevance of the history facts for students ($F_{(2, 31)} = 4.56, p < .05, \eta^2 = .23$), how inspirational ($F_{(2, 31)} = 12.14, p < .001, \eta^2 = .43$) and motivational ($F_{(2, 31)} = 5.06, p < .05, \eta^2 = .25$) the facts were, and how much the facts reflect positively on the U.S. ($F_{(2, 31)} = 17.73, p < .001, \eta^2 = .53$). There was no significant difference in history fact familiarity ($F_{(2, 31)} = 1.01, p > .15, \eta^2 = .06$). Although the ratings did not reach traditional levels of

statistical difference, an examination of the means (see Table 1) suggests that Mainstream facts were most familiar for students, followed by Achievement and Barriers facts. Ratings on the importance of teaching facts in classrooms were not significantly different ($F_{(2, 31)} = 2.38, p > .05, \eta^2 = .13$). Although ratings were not significantly different, students reported Barriers facts as more important for teaching than Achievement and Mainstream facts. This trend indicates that African American students in this sample are less exposed to history containing hardships of in-group members, and perceived them as more important for teaching in classrooms.

Tukey post-hoc tests indicated differences among the history fact conditions. The Barriers facts were significantly more relevant to participants' identity than Mainstream facts ($M_{\text{Diff}} = 2.00, p = .01$) but were not significantly more identity relevant than Achievement facts ($M_{\text{Diff}} = .48, p > .15$). Achievement facts were not significantly more identity relevant than Mainstream facts ($M_{\text{Diff}} = 1.52, p = .07$). Achievement facts were more inspirational in comparison to Barriers ($M_{\text{Diff}} = 1.86, p < .001$) and Mainstream facts ($M_{\text{Diff}} = 1.85, p < .01$). Barriers and Mainstream facts were not significantly different in terms of inspiration ($M_{\text{Diff}} = -.01, p > .05$). Achievement facts were more motivational than Barrier facts ($M_{\text{Diff}} = 1.90, p < .01$), but not significantly more motivational than Mainstream facts ($M_{\text{Diff}} = 1.18, p > .05$). Mainstream facts were not significantly more motivational than Barriers facts ($M_{\text{Diff}} = .73, p > .15$). Barriers facts reflected less positively on the U.S. compared to Achievement ($M_{\text{Diff}} = -2.93, p < .001$) and Mainstream ($M_{\text{Diff}} = -1.69, p < .05$) facts. There was no difference between Achievement and Mainstream facts reflecting positively on the U.S. ($M_{\text{Diff}} = 1.24, p >$

.05).

Table 1. ANOVA Results for Students' Perceptions of History Facts in Pilot Study ($n = 34$)

	<u>Mainstream</u> <i>M(SD)</i>	<u>Achievement</u> <i>M(SD)</i>	<u>Barriers</u> <i>M(SD)</i>	<i>F</i>	η^2	<i>p</i>
Familiarity	4.58(1.23)	3.86(0.91)	3.66(1.34)	1.01	.06	.38
Identity Relevance	3.46(1.30) _a	4.98(1.19) _{a,b}	5.46(1.54) _b	4.56	.23	.02*
Inspiration	4.12(0.66) _a	5.98(0.92) _b	4.11(1.34) _a	12.14	.43	.00***
Motivation	5.04(0.87) _{a,b}	6.22(1.79) _a	4.31(1.60) _b	5.06	.25	.01*
Positive Image of US	4.65(0.48) _a	5.89(0.69) _a	2.96(1.82) _b	17.73	.53	.00***
Teaching Importance	5.28(0.35)	5.36(0.97)	5.94(0.74)	2.38	.13	.11

Note. Within each row, means with different subscripts are significantly different according to the Tukey's Honest Significant Difference test ($p < .05$). Numbers in parentheses are standard deviations. * $p < .05$, *** $p < .001$.

To assess any potential effect of American history facts on students' performance on the logic test, a one-way between-subjects ANOVA test was conducted. There was a marginal condition effect, $F_{(2, 31)} = 2.64$, $p = .09$, $\eta^2 = .14$. A Tukey post-hoc test indicated that students in the Mainstream fact condition ($M = 73.17$, $SD = 31.82$) performed marginally better than those in the Barrier condition ($M = 43.86$, $SD = 43.86$, $p = .07$), and the Achievement condition ($M = 52.57$, $SD = 52.57$, $p = .25$). One explanation may be that Mainstream facts are more familiar for students and thus students are used to performing in the context of this "standard" type of information. The novelty of the Barrier and Achievement facts may have been distracting for students and negatively impact their performance. Alternatively, this unexpected result might be due to the small sample size of African American students in each condition (Mainstream =

6, Achievement = 14, and Barriers = 14). Therefore, I interpret this finding with caution. Furthermore, students in the Mainstream condition reported higher cumulative grade point average (GPA) ($M = 3.14$, $SD = .72$) than those in the Achievement condition ($M = 3.00$, $SD = .63$) and Barriers condition ($M = 2.54$, $SD = .44$), which may partly explain performance on the test. To test this, I conducted an ANCOVA that included cumulative GPA as a covariate. This analysis revealed a non-significant effect of GPA, ($F_{(1, 30)} = .05$, $p = .83$, $\eta^2 = .002$). The condition effect is non-significant ($F_{(2, 30)} = 2.42$, $p = .11$, $\eta^2 = .14$). The results suggest that condition effect became non-significant when controlling for GPA.

4. MAIN STUDY

In order to test the same hypotheses, a larger African American student sample size was collected from a historically Black university in the south and from the same predominately White university that was used in the pilot study.

4.1 Participants

A total of 80 undergraduate students who identified themselves as African Americans or Black Americans participated; 61 students were from a historically Black university and 19 students were from a predominately White university (58 females, 7 males, and 15 did not disclose their gender; $M_{\text{Age}} = 21.03$, $SD = 2.90$).

4.2 Procedures

Participants were randomly assigned into one of the three history conditions as described in the pilot study, with a difference that each condition contained 6 facts to read. They took the same logic test described in the pilot study and answered questions regarding their feelings toward the test. Afterwards, they completed individual differences measures and a word completion task. Then they reported any facts they could recall and answered demographics information. (See Appendices for all measures used in main study.) Finally, participants were debriefed and given course credits for their time.

4.3 Additional Materials

In addition to completing the logic test and rating the history facts, participants completed additional individual difference measures (i.e., academic identification, academic contingencies of self worth, racial/ethnic and national identification scales).

Post-test Questionnaire. This set of items was created to assess participants' confidence in their ability to do well on the test. A likert-scale is used (1 = *strongly disagree* to 7 = *strongly agree*) on items such as, "I think I did well on the problems" ($M = 3.49$, $SD = 1.36$, $\alpha = .76$). Higher scores indicate more confidence with doing well on the test.

Academic Identification Scale (Smith & White, 2001). This valid and reliable 8-item scale is used to measure how much students identify with the English ($M = 3.84$, $SD = .78$, $\alpha = .84$) and math domains ($M = 2.92$, $SD = .99$, $\alpha = .90$) on a scale of 1(*strongly disagree*) to 7 (*strongly agree*). Sample items include, "English is one of my best subjects," and, "I have always done well in Math." Higher scores indicate stronger English and math identification.

Racial/Ethnic and National Identification Scales (Luhtanen & Crocker, 1992). The scales measure personal regards towards one's racial/ethnic and national identity. Sample items such as "the national [racial/ethnic] group I belong to is an important reflection of who I am," are answered using a 7-point Likert scale with 1 being *not at all* to 7 being *very much*. The national identity ($M = 4.50$, $SD = 1.16$, $\alpha = .79$) and racial/ethnic identity scales ($M = 5.38$, $SD = 1.11$, $\alpha = .77$) are both reliable, with higher scores indicating more identification.

Multidimensional Inventory of Black Ideology Subscales (MIBI; Sellers, Rowley, Chavous, Shelton, & Smith, 1997). This scale assesses individual's beliefs, opinions, and attitudes with regard to the way she or he feels that members of the race should act. This dimension represents the person's philosophy about the ways in which African

Americans should live and interact with other people in society. The scale comprises valid and reliable subscales: assimilation ($M = 4.84$, $SD = 1.04$, $\alpha = .77$), humanist ($M = 4.91$, $SD = 1.08$, $\alpha = .80$), nationalist ($M = 4.11$, $SD = .92$, $\alpha = .66$), and oppressed minority ($M = 4.67$, $SD = .99$, $\alpha = .81$).

Word Completion Task (Steele & Aronson, 1995). This task involves converting word fragments into meaningful words. The purpose of this task is to assess salient concepts related to African American identity and associated stereotypes (i.e., *lazy*, *minority*, and *welfare*).

4.4 Results

The purpose of this study was to examine whether social representations of history that included or excluded African Americans impact performance among African American students. As a first step, I conducted one-way ANOVAs [and orthogonal planned comparisons] on the fact ratings and performance measures. While participants differed in their evaluations of the facts, the primary analyses revealed no main effects of condition on performance. As a result, I conducted additional analyses to explore what other factors could help illuminate when different representations of history might impact performance.

History Fact Ratings. Participants' attitudes towards the history facts were examined using a one-way ANOVA (see Table 2 for means). According to the analysis shown in Table 2, students differed on how they rate fact familiarity ($F_{(2, 77)} = 9.27$, $p = .007$, $\eta^2 = .19$), fact identity relevance ($F_{(2, 76)} = 19.23$, $p > .001$, $\eta^2 = .34$), how inspirational the facts were ($F_{(2, 77)} = 12.69$, $p > .001$, $\eta^2 = .25$), how motivational the

facts were ($F_{(2,76)} = 5.04, p < .01, \eta^2 = .11$), how positively the facts reflected on the US ($F_{(2,77)} = 33.43, p < .001, \eta^2 = .46$), and how important the facts were for teaching in classrooms ($F_{(2,76)} = 5.37, p = .009, \eta^2 = .12$).

To provide focused tests of hypothesized condition differences, I conducted orthogonal planned contrast with codes of (-1, -1, 2,) and (-1, 1, 0) for Barriers, Achievements, and Mainstream facts, respectively. The first contrast tested the hypothesis that identity-consistent African American History facts (Achievement and Barriers) would be more familiar, motivating, identity relevant, inspirational, and more important for teaching than Mainstream facts. The second contrast tested whether the Barrier facts differed from the Achievement facts on those variables, including differences on positive reflection of the U.S.

The first planned comparisons revealed that Achievement and Barriers facts ($M = 3.96, SD = 1.19$) were significantly less familiar to students than the Mainstream facts ($M = 5.05, SD = 1.07; t(77) = -4.05, p < .001, d = .96$). Achievement facts and Barriers facts ($M = 5.77, SD = 1.15$) were more relevant to students' identity than Mainstream facts ($M = 3.95, SD = 1.35; t(76) = 6.20, p > .001, d = 1.44$). Achievement and Barriers facts ($M = 5.17, SD = 1.70$) were more inspirational than Mainstream facts ($M = 4.34, SD = 1.21; t(77) = 2.51, p = .01, d = .56$). Achievement and Barriers facts ($M = 6.24, SD = .84$) were viewed as more important to teach in classrooms than the Mainstream facts ($M = 5.44, SD = 1.32; t(76) = 3.27, p > .001, d = .72$). Achievement and Barriers ($M = 5.47, SD = 1.73$) were not seen as more motivational than Mainstream facts ($M = 4.94, SD = 1.58; t(76) = 1.39, p = .19, d = .32$). Achievement and Barriers ($M = 4.35, SD =$

1.93) did not differ on how positively the facts reflected on the U.S. ($M = 4.83$, $SD = 1.08$; $t(76) = 3.27$, $p = .002$, $d = .31$).

The second planned comparisons revealed that Barriers and Achievement facts did not differ in familiarity ($t(77) = -1.47$, $p = .15$, $d = .40$); identity relevance ($t(76) = -.13$, $p = .90$, $d = .04$), and importance for teaching ($t(77) = -.21$, $p = .83$, $d = .06$). The conditions differed in inspiration rating ($t(77) = -4.36$, $p > .001$, $d = 1.13$), such that Achievement facts ($M = 6.02$, $SD = .94$) are more inspirational than Barriers facts ($M = 4.32$, $SD = 1.89$). The conditions also differed in motivational rating ($t(76) = -2.85$, $p = .006$, $d = .79$), such that Achievement facts ($M = 6.11$, $SD = 1.38$) are more motivational than Barriers facts ($M = 4.83$, $SD = .36$). Achievement facts ($M = 5.75$, $SD = 1.03$) reflect more positively on the U.S. than Barriers facts ($M = 2.96$, $SD = 1.59$; $t(77) = -8.01$, $p > .001$, $d = .85$).

Table 2. ANOVA Results for Students' Perceptions of History Facts in Main Study

	<u>Mainstream</u> <i>M(SD)</i>	<u>Achievement</u> <i>M(SD)</i>	<u>Barriers</u> <i>M(SD)</i>	<i>df</i>	<i>F</i>	η^2	<i>p</i>
Familiarity	5.05(1.07) _a	4.19(0.86) _b	3.72(1.44) _b	2, 77	9.27	.19	.00***
Identity Relevance	3.95(1.35) _a	5.79(1.17) _b	5.74(1.15) _b	2, 76	19.23	.34	.00***
Inspiration	4.34(1.21) _a	6.02(0.94) _b	4.32(1.89) _a	2, 77	12.69	.25	.00***
Motivation	4.94(1.59) _a	6.11(1.38) _b	4.83(1.83) _a	2, 76	5.04	.11	.00**
Positive Image of US	4.83(1.08) _a	5.75(1.03) _b	2.96(1.59) _c	2, 77	33.43	.46	.00***
Teaching Importance	5.44(1.32) _a	6.27(0.70) _b	6.21(0.96) _b	2, 76	5.37	.12	.00**

Note. Within each row, means with different subscripts are significantly different according to the Tukey's Honest Significant Difference test ($p < .05$). Numbers in parentheses are standard deviations. ** $p < .01$, *** $p < .001$.

Logic Test Performance. To assess any potential effect of American history facts on students' performance, a one-way between-subjects ANOVA test was conducted. There were no significant differences in performance among the groups, $F_{(2, 76)} = .17, p = .84, \eta^2 = .00$. Students in the Achievement condition ($M = 31.44, SD = 22.82$), Barriers ($M = 27.57, SD = 22.03$), and Mainstream ($M = 29.21, SD = 25.00$) conditions performed similarly on the logic test.

Additional Exploratory Analyses. Although condition did not significantly impact performance, during exploratory analyses I observed that the correlations between variables of interest differed across conditions. In the Mainstream ($r = .46, p < .05$) and Barriers ($r = .44, p < .05$) conditions, academic identification specifically math identification was positively related to performance. This positive relationship between academic identity and performance replicated prior research (e.g., Oyserman et al., 2004; Smith & White, 2001). However, this relationship does not hold in the case of the Achievement condition. Instead, racial identification is positively related to performance in this condition ($r = .45, p < .05$). In addition, racial identification was positively related to stereotype threat activation, but only in the Mainstream condition ($r = .49, p < .05$). One interpretation of this relationship is that in a context where identity relevant social representations are absent (i.e., the Mainstream condition), the salience of racial stereotypes are contingent upon one's racial identification. This suggests that African American history has the potential to attenuate stereotype threat depending on students' level of racial identity. See Table 3 for correlations for Mainstream condition, Table 4 for Achievement condition, and Table 5 for Barriers Condition.

Table 3. Correlations, Means and Standard Deviations of Variables for Mainstream Condition

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Logic Test Performance	29.21	25.00	—									
2. Test Confidence	3.81	1.40	.16	—								
3. English Identity	3.66	.81	-.02	-.44*	—							
4. Math Identity	2.93	1.00	.46*	-.00	-.12	—						
5. Stereotype Activation	1.22	.97	.28	-.28	.02	.18	—					
6. National Identity	4.36	1.15	.25	-.08	-.15	-.11	-.06	—				
7. Racial Identity	5.27	1.07	.21	-.26	.18	-.09	.49*	.09	—			
8. Assimilation	5.07	1.07	.35	-.16	.14	.06	.15	.62**	.06	—		
9. Humanist	4.99	1.21	.41*	-.29	.29	.00	-.11	.70**	.01	.79**	—	
10. Nationalist	4.24	.91	-.09	.36	.00	.20	-.26	-.30	-.50**	-.17	-.31	—
11. Oppressed Minority	4.72	1.06	.22	-.28	.37	-.02	-.16	.47*	-.07	.70**	.80**	-.08

Note. * $p < .05$, ** $p < .01$.

Table 4. Correlations, Means and Standard Deviations of Variables for Achievement Condition

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Logic Test Performance	31.44	22.82	—									
2. Test Confidence	3.29	1.31	.34	—								
3. English Identity	3.92	.78	-.01	-.22	—							
4. Math Identity	2.67	.98	.19	.38	-.07	—						
5. Stereotype Activation	1.00	.67	-.31	.16	.09	.09	—					
6. National Identity	1.49	1.18	.17	.07	.01	.12	-.10	—				
7. Racial Identity	5.34	1.04	.45*	.08	.41*	.00	.22	-.09	—			
8. Assimilation	4.82	.79	.23	-.17	.36	-.12	.29	.30	.18	—		
9. Humanist	4.85	1.09	.11	-.28	.41*	-.17	.20	-.03	.11	.67**	—	
10. Nationalist	3.89	.85	-.27	-.08	.01	-.22	.14	-.06	-.22	.35	.52**	—
11. Oppressed Minority	4.69	.95	-.08	-.45*	.31	-.41*	.19	.10	.21	.46*	.60**	.34

Note. * $p < .05$, ** $p < .01$.

Table 5. Correlations, Means and Standard Deviations of Variables for Barriers Condition

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Logic Test Performance	27.58	22.03	—									
2. Test Confidence	3.36	1.37	.22	—								
3. English Identity	3.93	.74	-.38	-.26	—							
4. Math Identity	3.16	.95	.44*	.04	-.43*	—						
5. Stereotype Activation	.96	.98	.29	-.09	-.29	.24	—					
6. National Identity	4.64	1.18	.24	-.15	.02	.07	-.05	—				
7. Racial Identity	5.52	1.24	.15	-.34	.22	.21	-.12	.43*	—			
8. Assimilation	4.61	1.19	.17	.42*	.18	.09	-.09	.04	-.18	—		
9. Humanist	4.89	.96	.18	.20	.17	.12	-.01	.42*	.14	.52**	—	
10. Nationalist	4.17	.99	.11	.48*	-.18	.03	-.03	-.26	-.10	.26	.16	—
11. Oppressed Minority	4.61	.97	.03	.10	.04	.02	-.04	.13	-.09	.34	.63**	.34

Note. * $p < .05$, ** $p < .01$.

In light of the correlations between racial identification and stereotype threat activation, I examined condition and racial identification as predictors of stereotype saliency associated with African Americans. This concept was used to assess stereotype threat in previous studies using a word completion task (Steele & Aronson, 1995). Table 6 shows regression models with condition ($\beta = -.16, p = .17$) and racial identity terms ($\beta = .18, p = .13$) predicting stereotype threat activation in step 1 ($F_{(2, 71)} = 1.96, p = .15, \eta^2 = .05$) and the inclusion of the condition by racial identity interaction term ($\beta = -2.52, p = .01$) in step 2 ($F_{(3, 70)} = 3.53, p = .02, \eta^2 = .13$). In step 2, the interaction term between condition and racial identity explained a significant increase in variance in stereotype activation, $t(70) = -2.52, p < .05$.

Table 6. Summary of Multiple Regression Analyses of Stereotype Concept Activation

	<u>Stereotype Concept Activation</u>		
	<i>B</i>	<i>SE B</i>	<i>β</i>
Step 1			
Constant	1.25	.16	
Condition	-.17	.12	-.16
Racial Identity	.14	.09	.18
Step 2			
Constant	1.27	.15	
Condition	-.17	.12	-.16
Racial Identity	.43	.14	.54**
Condition X Racial Identity	-.26	.10	-.46**

Note. $R^2 = .05$ for Step 1, $\Delta R^2 = .08$ for Step 2 ($p < .01$). ** $p < .01$.

To probe this interaction, I used a web-based utility tool developed by Preacher and colleagues (Preacher, Curran, & Bauer, 2006). Condition was a significant moderator of the relationship between racial identity and stereotype activation. The unstandardized simple slope for Mainstream condition was .12, the unstandardized simple slope for Achievement condition was -.17, and the unstandardized simple slope for Barriers condition was -.46. See Figure 1.

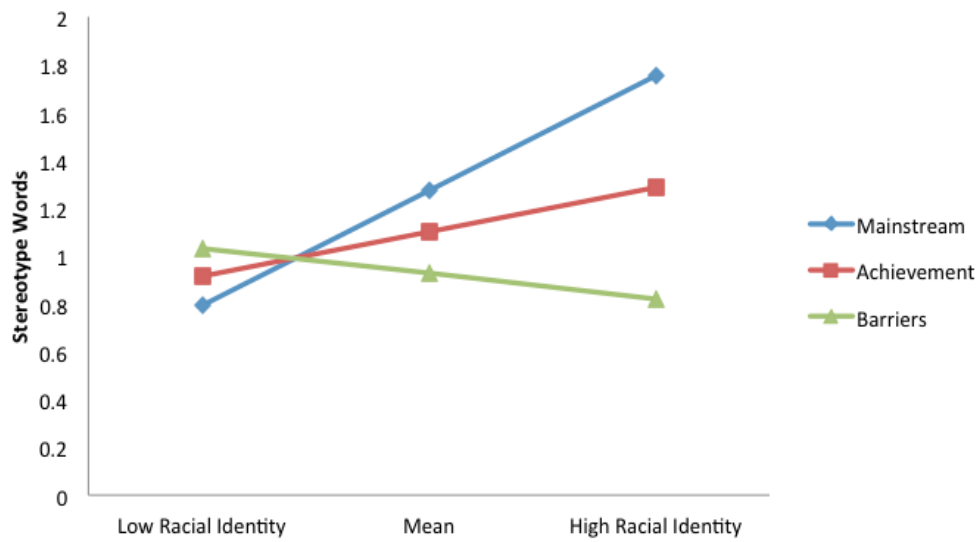


Figure 1. Condition moderating the relationship between racial identity and stereotype activation.

Finally, because what it means to identify as African American and the meaning behind it can vary (Sellers et al., 1997), I also examined the relationships between the MIBI ideology subscales and the variables of interest. Humanist ideology positively predicted test performance in the Mainstream condition ($r = .41, p < .05$). In the Achievement condition, oppressed minority was negatively related to test confidence ($r = -.45, p < .05$). In the Barriers condition, both assimilationist ideology ($r = .42, p < .05$) and nationalist ideology ($r = .48, p < .05$) were positively related to test confidence. Refer back to Table 3 for correlations for Mainstream condition, Table 4 for Achievement condition, and Table 5 for Barriers Condition.

5. SUMMARY AND CONCLUSIONS

5.1 General Discussion

This study explored the consequences of exposure to divergent social representations of American history on African American students' academic engagement and performance. Results in the pilot study and main study lend some preliminary evidence for African American students' attitudes towards divergent representation of American history. Specifically, students view history facts containing in-group representations (i.e., Achievement and Barrier facts) as more relevant to their identity in comparison to Mainstream facts that do not have representations of in-group members. The celebratory Achievement facts reflected more positively on the U.S. and were perceived as more motivational and inspirational than Mainstream facts. Students also rated African American history facts as more important to teach in history classes. However, evidence for the primary hypotheses was not found. Exposure to divergent social representations of American history did not have an impact on African American students' academic performance; Across the Mainstream, Achievement, and Barriers conditions students performed similarly.

Correlation analyses revealed that having a high math identity was positively related to academic outcomes in the Mainstream and Barrier conditions. This is consistent with the possible selves theory which states that academic success includes identification with academic domains (Oyserman et al., 2004). The Achievement facts were viewed as most motivational and inspirational for students, which may have boosted their performance regardless of their level of math identification. This idea is

supported by prior research on role models (e.g., the “Obama effect”; Marx et al., 2009) that demonstrate positive representations of in-group members can positively impact performance by alleviating stereotype threat. Correlation analyses also revealed that racial identity was positively related to performance in the Achievement condition. Students who identify more with being African American benefit from exposure to this fact version, possibly because seeing positive representations of in-group members disconfirms the negative stereotype about African American’s intellectual ability, thus “lifting” the burden for students of having to disconfirm a negative stereotype about one’s group. This lifted burden can alleviate threat for students and, in turn, positively impact their performance on the test.

An interesting finding is that condition moderates the relationship between racial identity and stereotype concept activation. Specifically, students with high racial regard in the Mainstream condition think more about stereotypes of African Americans than those in the Achievement and Barriers conditions. Stereotype concept activation was lowest in the Barriers condition, which provides some evidence that facts containing historical struggles of African Americans can attenuate stereotype threat. Future research will look at the potential mediating effect of stereotype activation on the relationship between history conditions and performance.

Other interesting findings involve students’ racial ideology as captured in the MIBI ideology subscales and their relationship to academic measures. Students who endorse a humanist ideology are more likely to perform well on the test upon exposure to Mainstream facts. This finding makes sense given that humanists believe in

commonalities of all humans regardless of racial backgrounds, which fits the narrative provided by Mainstream facts that does not emphasize specific group experiences with systemic oppression like Barriers facts. In other words, the “sanitized” version of history in Mainstream condition is consistent with the humanist ideology. This potentially affords students with a humanist ideology a performance boost. Different racial ideologies can also influence how students perceive their performance ability on the test. For example, students who endorse an oppressed minority philosophy reported less confidence of their performance ability in the Achievement condition. This can be explained by the negative effect of confronting evidence that disconfirms one’s beliefs. Those who endorse an oppressed minority philosophy believe that Blacks and other racial minorities are facing similar systemic oppressions that hinder social progress, political and economic mobility for those minority groups. Thus, seeing fellow African Americans succeeding despite systemic racism can cause psychological dissonance that may lower feeling of performance confidence. Psychological dissonance may also explain another finding in which students who hold an assimilationist ideology reported more performance confidence in the Barriers condition. Students with an assimilationists ideology view mainstream culture as positive, which is in contrast to the narrative of systemic barriers presented in the Barriers facts. This exposure to historical racism may induce psychological dissonance. In order to reduce the psychological dissonance, students might affirm self-worth by increasing their confidence on the test. Another finding suggests that those who endorse a nationalist philosophy reported more performance confidence in the Barriers condition. Those who endorse a nationalist

philosophy believe that the White mainstream culture oppresses the Black community by hindering social, political, and economic progress. Nationalists also believe that Blacks should form solidarity within the Black community and not assimilate into the White Mainstream culture that is infused with racism. Barrier facts, which detail the hardships of African Americans due to systemic racism, then are consistent with nationalist narrative of systemic oppression of Blacks. This narrative consistency may boost students' performance confidence.

5.2 Limitations and Future Directions

Limitations include the method in which data was collected online. This method poses issues in that students could take the study anywhere and for an unregulated amount of time, which may present many confounding factors unaccounted for in the data analyses. Another limitation is combining data of students from two different universities, whose experiences on campus can influence how they engage with the history facts. For example, students from a historically Black university might perform well on the logic test, regardless of the type of history exposure, because they are in an identity-safe environment on campus. African American students on a predominately White university upon exposure to history facts may perform differently depending on their perceptions of the contexts (e.g., whether it is identity-safe or not). Another limitation of the research is that other marginalized identities were not represented in the history fact sample, such as women and other people of color. A fruitful avenue for future research is to look at how (in)visibility of representations of minorities might impact their academic performance. For example, future studies can look at whether

exposure to representations of women in history can alleviate stereotype threat for women on math tests.

Findings from the current study can also promote some interesting research questions for the role of history exposure on racial and ethnic identity formation and academic engagement and performance of adolescents. Previous research has shown that racial and ethnic identity development starts at an early age and plays an important role for adolescents in making sense of who they are in their social contexts (Brown & Bigler, 2005). These social contexts in turn provide feedback about how others see one's racial-ethnic group and role models for engagement in the world ("I can do what others like me are doing"; Oyserman, Brickman, & Rhodes, 2007). Because adolescents are required by the law to stay in school, school is an important social context for identity development. Everyday interactions with their peers and teachers and engagement with learning materials, like history textbooks, serve as meaningful cues for racial-ethnic identity awareness. In terms of engagement with American history that often renders racial-ethnic groups as peripheral or invisible (Lowen, 1995), reasonable questions to ask would be: what might be the consequences of minimal exposure to a variety of representations of one's group on identity formation of racial-ethnic adolescents? How might this impact student's academic identity and engagement within their school environment? These questions can lead to interesting findings that have the potential to illuminate the consequences of exposure to history on minority students' identity development.

5.3 Conclusions

Even with potential limitations, the present study proposes that having divergent historical representations of one's racial group in academic settings can have a positive effect on racial and ethnic minority students' academic engagement and performance, particularly when students have a positive sense of identity upon seeing themselves as being represented as a dynamic group of people with a past, present, and future. One potential reason being that having a variety of social representations of one's social group affords stigmatized individuals the possibility to see themselves in different social roles (e.g., teachers, lawyers, doctors, engineers, politicians) which then can motivate students to engage in strategies that can help them achieve educational goals in order to realize those social roles (Oyserman et al., 2004). Furthermore, seeing in-group members who have already excelled in a field can potentially "lift" the burden for the individual student of having to disprove the negative stereotype about one's groups. The lifted burden allows students to concentrate on the task at hand rather than thinking about disconfirming a negative stereotype about one's group, which can improve their performance.

The current study can have practical implications in academic settings. In particular, history narrative in classrooms can include identity- relevant representations of racial and ethnic minority students to increase academic engagement with learning materials that can positively influence performance. This can be a practical approach in that it takes changing the environment instead of focusing on "fixing" the individual psyche. Thus, findings in this study may be able to provide valuable information for

educators, researchers, and policy makers in designing intervention strategies that can aid in minimizing the educational academic gap.

REFERENCES

- Adams, G., & Markus, H. R. (2004). Toward a conception of culture suitable for a social psychology of culture. In M. Schaller and C. S. Crandall (Eds.), *The Psychological Foundations of Culture* (pp. 335- 360). Mahwah, NJ: Lawrence Erlbaum Associates.
- Aronson, J., Lustina, M., Good, C., Keough, K., Steele, C., & Brown, J.(1999). When white men can't do math: Necessary and sufficient factors in stereotype threat. *Journal of Experimental Social Psychology*, 35, 29–46.
doi:10.1006/jesp.1998.1371
- Baumeister, R. F., & Hastings, S. (1997). Distortions of collective memory: How groups flatter and deceive themselves. In J. W. Pennebaker, D. Paez, & B. Rimé (Eds.), *Collective memory of political events: Social psychological perspectives* (pp. 277-293). Mahwah, NJ: Erlbaum.
- Blatz, C. W., & Ross, M. (2009). Principled ideology or racism: Why do modern racists oppose race-based social justice programs. *Journal of Experimental Social Psychology*, 45, 258–261.
- Brown, C. S., & Bigler R. S., (2005). Children's perceptions of discrimination: A developmental model. *Child Development*, 76, 533- 553.
- Cohen, G. L., Garcia, J., Apfel, N., & Master, A. (2006). Reducing the racial achievement gap: A social-psychological intervention. *Science*, 313, 1307–1310.
- The College Board Entrance Examination Board (2011). SAT percentile ranks for 2011 college-bound seniors. Retrieved on December 12, 2011, from

<http://media.collegeboard.com/digitalServices/pdf/SAT-Percentile-Ranks-by-Gender-Ethnicity-2011.pdf>

- Croizet, J. C., & Claire, T. (1998). Extending the concept of stereotype and threat to social class: The intellectual underperformance of students from low socioeconomic backgrounds. *Personality and Social Psychology Bulletin*, 24, 588–594.
- Fryberg, S. A., & Markus, H. R. (2007). Cultural models of education in American Indian, Asian American, and European American contexts. *Social Psychology of Education*, 10, 213 – 246. doi:10.1007/s11218-007-9017-z
- Fryberg, S. A., Markus, H. R. Oyserman, D. & Stone J. M. (2008). Of warriors chiefs and Indian princesses: The psychological consequences of American Indian mascots. *Basic and Applied Social Psychology*, 30, 208-218.
- Fryberg, S. A., & Townsend, S. S. M. (2008). The psychology of invisibility. In G. Adams, M. Biernat, N. Branscombe, C. S. Crandall, & L.W. Wrightsman (Eds.), *Commemorating Brown: The social psychology of racism and discrimination* (pp. 173–193). Washington, DC: American Psychological Association. doi:10.1037/11681-010
- Hardin, C. D., & Higgins, E. T. (1996). Shared reality: How social verification makes the subjective objective. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (pp. 28 -84). New York: Guilford Press.
- Inzlicht, M., & Schmader, T. (Eds.). (2012). *Stereotype threat: Theory, process, and application*. New York, NY: Oxford University Press. Jencks, C., & Phillips, M.

- (1998). *The Black-White test score gap*. Washington, DC: Brookings Institution Press. Jencks, C., & Phillips, M. (1998). *The Black-White test score gap*. Washington, DC: Brookings Institution Press.
- Kitayama, S., & Markus, H. R. (1999). Yin and yang of the Japanese self: The cultural psychology of personality coherence. In D. Cervone & Y. Shoda (Eds.), *The coherence of personality: Social cognitive bases of personality consistency, variability, and organization*. (pp. 242–302). New York: Guilford Press.
- Kurtiş, T., Adams, G., & Yellowbird, M. (2010). Generosity or Genocide? Identity implications of silence in American Thanksgiving commemorations. *Memory*, 18, 208-224. Special issue: Silence and Memory.
- Liu, J. H., & Hilton, D. J. (2005) How the past weighs on the present: Social representations of history and their role in identity politics. *British Journal of Social Psychology*, 44, 537-556.
- Loewen, J. (1995). *Lies my teacher told me: Everything your American history textbook got wrong*. New York: Touchstone.
- Lockwood, P., & Kunda, Z. (1997). Superstars and me: Predicting the impact of role models on the self. *Journal of Personality and Social Psychology*, 73, 91-103.
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18, 302-318.
- Markus, H.R. & Hamedani, M.G. (2007). Sociocultural psychology: The dynamic

- interdependence among self systems and social systems . In S. Kitayama and D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 3-39). New York: Guilford.
- Marx, D. M., Ko, S. J., & Friedman, R. A. (2009). The “Obama effect”: How salient role model reduces race-based performance differences. *Journal of Experimental Social Psychology*, 45, 953–956.
- Moya, P. (2002). *Learning from experience: Minority identities, multicultural struggles*. Berkeley: University of California Press.
- Murphy, M. C., Steele, C. M., & Gross, J. J. (2007). Signaling threat: How situational cues affect women in math, science, and engineering settings. *Psychological Science*, 18, 879 – 885. doi:10.1111/j.1467-9280.2007.01995.x
- Oyserman, D., Brickman, D., & Rhodes, M. (2007). Racial-ethnic identity: Content and consequences for African American, Latino, and Latina youths. In A. Fuligni (Ed.), *Contesting stereotypes and creating identities: Social categories, social identities, and educational participation* (pp 91-114). New York: Russell Sage.
- Oyserman, D., Bybee, D., Terry, K., & Hart-Johnson, T. (2004). Possible selves as roadmaps. *Journal of Research in Personality*, 38, 130–149.
- Oyserman, D., & Fryberg, S. A. (2006). The possible selves of diverse adolescents: Content and function across gender, race, and national origin. In C. Dunkel & J. Kerpelman (Eds.), *Possible selves: Theory, research, and application* (pp. 17 – 39). Huntington, NY: Nova.
- Oyserman, D., & Markus, H. R. (1993). The sociocultural self. In J. Suls (Ed.), *The self*

- in social perspective: Psychological perspectives on the self* (pp. 187–220). Hillsdale, NJ: Erlbaum.
- Oyserman, D., Terry, K., & Bybee, D. (2006). Possible selves and academic outcomes: How and when possible selves impel action. *Journal of Personality and Social Psychology*, *91*, 188-204.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, *31*, 437-448.
- Salter, P. S. (2010). Representations of Black History as Intentional Worlds of Oppression and Liberation. Unpublished doctoral dissertation, University of Kansas: Lawrence, KS.
- Sellers, R. M., Rowley, S. A. J., Chavous, T. M., Shelton, J. N., & Smith, M. (1997). Multidimensional Inventory of Black Identity: Preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology*, *73*(4), 805-815.
- Sherman, D. K., Hartson, K. A., Binning, K. R., Ourdie- Vaughns, V., Garcia, J., Taborsky - Barba, S., Tomassetti, S., Nussbaum, A.D., & Cohen, G. L. (2013). Deflecting the trajectory and changing the narrative: How self-affirmation affects academic performance and motivation under identity threat. *Journal of Personality and Social Psychology*, *104*, 591 – 618.
- Shweder, R. A. (1990). Cultural psychology: What is it? In J. Stigler, R. Shweder, & G. Herdt (Eds.), *Cultural psychology: Essays on comparative human development*

- (pp. 1–46). Cambridge, UK: Cambridge University Press.
- Smith, J.L. & White, P.H. (2001). Development of the domain identification measure: A tool for investigating stereotype threat effects. *Educational and Psychological Measurement*, 61, 1040 -1057.
- Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, 35, 4-28.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261–302). New York, NY: Academic Press. doi:10.1016/S0065-2601(08)60229-4
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69, 797–811.
- Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 379–440). San Diego, CA: Academic Press.
- Stephens, N. M., Fryberg, S. A., Markus, H. R., Johnson, C., & Covarrubias, R. (2012). Unseen disadvantage: How American universities' focus on independence undermines the academic performance of first generation college students. *Journal of Personality and Social Psychology*. Advance online publication. doi:10.1037/a0027143

U.S. Department of Education, National Center for Education Statistics. (2013). The condition of education 2013 (NCES 2013-037), status dropout rates. Retrieved from http://nces.ed.gov/programs/coe/indicator_coj.asp

Vanneman, A., Hamilton, L., Baldwin Anderson, J., and Rahman, T. (2009).

Achievement Gaps: How Black and White Students in Public Schools Perform in Mathematics and Reading on the National Assessment of Educational Progress, (NCES 2009-455). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. Retrieved from <http://nces.ed.gov/nationsreportcard/pubs/studies/2009455.aspx>

Walton, G. M., & Cohen, G. L. (2003). Stereotype lift. *Journal of Experimental Social Psychology*, 39, 456 – 467. doi:10.1016/S0022-1031(03)00019-2

Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology*, 92, 82–96. doi:10.1037/0022-3514.92.1.82

APPENDIX A

HISTORY FACTS

Instructions: We are interested in what you think represents American History. Please read each history fact carefully, and respond by using the following scale from 1 (not at all) to 7 (very much).

	not at all			somewhat much			very
Q1.I am familiar with the content of this history item.	1	2	3	4	5	6	7
Q2.This fact is relevant to my identity.	1	2	3	4	5	6	7
Q3.This fact reflects positively on the United States.	1	2	3	4	5	6	7
Q4.This fact is inspirational.	1	2	3	4	5	6	7
Q5.This fact is demotivating.	1	2	3	4	5	6	7
Q6.How important is this fact for teaching American History?	1	2	3	4	5	6	7

Mainstream facts:

- 1) The 17th president of the United States, Andrew Johnson, was sworn in on April 15, 1865, upon the death of President Lincoln. He was the first Vice President to succeed to the Presidency upon the assassination of a President. *
- 2) Benjamin Franklin, one of the most distinguished scientific and literary Americans of his era, was the first American diplomat.as the first American diplomat. *
- 3) Frances Perkins was appointed the Secretary of Labor by President Franklin D. Roosevelt. She was the first woman cabinet member; thus, the first woman to enter the presidential line of succession. *
- 4) The stock market crash of 1929 in the U.S. triggered a decade of high unemployment and poverty known as the Great Depression. The worst hit sectors were blue collar employees from heavy industry, agriculture, mining, and logging; least affected were white collar workers. *
- 5) Jonas Edward Salk developed the first successful polio vaccine in 1947. At the time he was the Director of Virus Research at the University of Pittsburgh. *
- 6) Manifest Destiny was a phrase used by leaders and politicians in the 1840s to explain continental expansion by the United States. They believed America had a divine right to become a transcontinental nation. *

- 7) McCarthyism describes a period of intense anti-Communist suspicion in the United States that lasted roughly from the late 1940s to the late 1950s. This period is also known as the red scare.
- 8) Bill Gates is an entrepreneur, philanthropist, and author. He is famously known for cofounding the world's largest software business, Microsoft. Gates has been consistently ranked as one of the world's wealthiest and most influential people in America.
- 9) Nancy Pelosi is the first woman to serve as Speaker of the House, second in the line for the US presidency; thus making Pelosi the highest-ranking female politician in United States history.
- 10) The Human Genome Project was a scientific endeavor that started in 1990 to map out all the genes in human DNA. The completion date was in 2003, which was earlier than planned due to advancement in technology.
- 11) According to the U.S. Bureau of Labor Statistics, the national unemployment rate was at 5% in December 2008 marking the beginning of an economic recession. In October 2009, the unemployment rate peaked at 10.1%, making this the highest unemployment rate in the past 26 years.
- 12) Tina Fey is an American actress, comedian, writer, and producer who has worked for NBC sketch comedy series Saturday Night Live. Fey became head writer for Saturday Night Live in 1999, which made her the first female to hold that position.

Achievement facts:

- 1) Ralph Bunche was the first African American to receive the Nobel Prize for Peace. He was honored for his mediation in Palestine in the late 1940s that led to an armistice agreement between the Israelis and Palestinians in the region. *
- 2) As a mission specialist aboard the Shuttle *Endeavour* in 1992, Mae Jemison was the first African American woman to enter space. *
- 3) Charles Drew was an African American doctor who invented the process of extracting plasma from whole blood for the purpose of storage and transfusion. *
- 4) The Civil Rights Act of 1964 was landmark legislation in the United States that outlawed discrimination based on race, color, religion, sex, or national origin. *
- 5) The Harlem Renaissance was a time of outstanding creative activity. It was a flowering of African American art, literature, music, and culture in the United States led primarily by the African American community based in Harlem, New York City. *
- 6) Carl Stokes served as mayor of Cleveland, Ohio from 1967 - 1971; thus making him the first African American mayor to be elected mayor in a major U.S. city. *

- 7) Benjamin Carson is an African American pediatric neurosurgeon who was awarded the nation's highest civilian honor, the Presidential Medal of Freedom in 2008. Dr. Carson was recognized, amongst other things, for being the first surgeon in the world to successfully separate Siamese twins
- 8) Oprah Winfrey is an African American self-made billionaire and the first woman in history to own and produce her own talk show.
- 9) Anthony Dungy became the first African American NFL head coach to win the Super Bowl when the Indianapolis Colts defeated the Chicago Bears on February 4, 2007.
- 10) Lonnie Johnson is an African American engineer best known for the invention of the Super Soaker water gun, which was the top selling toy in the United States in 1991 and 1992.
- 11) Condoleezza Rice was the first African American female to become provost for Stanford University from 1993 – 1999. Rice is also known for being the first African American female appointed as U.S. Secretary of State.
- 12) Toni Morrison is an American novelist, editor, and professor. Morrison was the first African American to win the Nobel Prize in Literature in 1993.

Barriers facts:

- 1) Dred Scott, a slave, sued for his freedom in 1847. The Supreme Court ruled that he was property, not a citizen of the United States and therefore could not sue in federal court. *
- 2) In 1931, nine Black youths were falsely accused of raping two White women. Although wrongly convicted, 19 years passed until all of the “Scottsboro Boys” were either freed by parole, appeal, or escape. *
- 3) The F.B.I. employed illegal techniques (e.g., hidden microphones in motels) in an attempt to discredit African American political leaders such as Martin Luther King, Jr. during the civil rights movement. *
- 4) Anti-miscegenation laws were ruled unconstitutional by the United States Supreme Court in 1967. Despite this ruling, such laws remained on the books in several states until 2000 when Alabama became the last state to remove its law against mixed-race marriage. *
- 5) Francis Beal, member of the Student Nonviolent Coordinating Committee (SNCC) and co-founder of the Black Women's Liberation Committee in 1968, helped clarify the struggles of black women in the influential essay "Double Jeopardy: To Be Black and Female" that also appeared in the landmark 1970 anthology *The Black Woman*. *
- 6) Ronald McNair, the second African American to fly into space, grew up in South Carolina in the 1950s. During this time, he could not drink from White drinking fountains, had to use second hand books at school, and was subjected to other Jim Crow laws. *
- 7) Medgar Evers, a civil rights leader, was assassinated in 1963 by a member of the Ku Klux Klan for his writings and speeches.

- 8) According to the Bureau of Labor Statistics, a race-based wage gap in the United States has persisted over time. African American men's earnings were about 74% of the median annual income of White American men in 1975 and 75% in 2010. Although there have been fluctuations, this percentage has not risen above 80.6%.
- 9) The Rooney Rule was passed in 2003 to reverse decades of lack of opportunities for minorities as head coaches in the NFL. It mandates that NFL teams in search of head coaches interview at least one minority candidate for the position.
- 10) Amadou Diallo, a 22-year-old immigrant from West Africa, was shot 41 times by white New York police officers in his apartment while he was reaching out for identification. The officers assumed Diallo was going for a gun, but no weapon was found.
- 11) In 1983, Alice Walker, author of the critically acclaimed novel *The Color Purple*, coined the term *womanism*, a feminist ideology that addresses the black woman's unique history of racial and gender oppression.
- 12) The Nobel Prize is an annual international award recognizing cultural and scientific achievements. Although individuals of African descent have been recognized with awards in the areas of Peace, Literature, and Economics, African-descended scientists have not been recognized with awards in the areas of Physiology or Medicine, Physics, nor Chemistry.

Note. All facts were used in the pilot study. Only facts with an “*” were used in the main study.

APPENDIX B

LOGIC TEST

The following test items, taken from the GRT, are designed to assess the type of analytic reasoning ability that you need to succeed in school. Please answer as many items as you can in the time provided.

Use the following information to answer items 1 - 6.

A class of eight students --- girls Q, R, S, and T, and boys U, V, W, and X --- is divided into two teams, Team Blue and Team Gold.

Each team consists of exactly four students.

T and X are on different teams.

V and W are on the same team.

R is on Team Gold.

Each team consists of at least one boy and one girl, and consists of an unequal number of boys and girls.

1. Which of the following represents the possible membership of Team Gold?

- (A) Q, R, T, and X
- (B) Q, R, T, and U
- (C) R, T, V, and W
- (D) R, S, T, and V
- (E) Q, V, W, and X

2. If Q, T, and U are on Team Blue, who is the fourth member of Team Blue?
S

3. If T and V are on Team Blue, what is the membership of Team Gold?
X, W

4. If R and W are on the same team, all of the following must be true, EXCEPT

- (A) T is on Team Blue.
- (B) Q and U are on the same team.
- (C) W is on Team Gold.
- (D) R and V are on the same team.
- (E) S is on Team Gold.

5. If X is on Team Blue, which one of the following pairs of students CANNOT be together on a team?

- (A) X and V

- (B) X and Q
- (C) S and V
- (D) Q and S
- (E) U and T

6. Assume that Team Blue consists of Q, V, W, and X and that Team Gold consists of R, S, T, and U. Which one pair of students may switch teams without violating any conditions?

Q S

Use the following information to answer items 7 - 12.

The National Zoo has a very active panda bear colony. One day six of the pandas broke out of their compound and visited the seals. After they were returned to their compound, they were examined by the Panda-keeper. The following facts were recorded.

Bin-bin is fatter than Ging-ging and drier than Eena.
 Col-col is slimmer than Fan-fan and wetter than Ging-ging.
 Dan-dan is fatter than Bin-bin and wetter than Ging-ging.
 Eena is slimmer than Ging-ging and drier than Col-col.
 Fan-fan is slimmer than Eena and drier than Bin-bin.
 Ging-ging is fatter than Fan-fan and wetter than Bin-bin.

7. Which of the pandas is (are) fatter than Eena and drier than Ging-ging?

Bin Bin

8. Which of the pandas is both slimmer and wetter than Eena?

Col Col

9. Which of the pandas is (are) both fatter and wetter than Ging-ging?

Dan Dan

10. Which of the pandas is the driest?

Fan fan

11. Which of the following statements must be false?

- I. Dan-dan is drier than Col-col.
- II. Fan-fan is wetter than Dan-dan.
- III. Dan-dan is three inches fatter than Ging-ging.

- (A) I only
- (B) II only
- (C) III only
- (D) I and II only
- (E) II and III only

12. A new panda, Yin-yin, is purchased from the Peking Zoo. If dominance in panda bears is determined by fatness, then what will Yin-yin's rank, from the top, if he is fatter than Fan-fan and slimmer than Bin-bin?

3rd or 4th rank

Use the following information to answer items 13 - 18.

There are five tin cans in a row, labeled one through five from left to right. The five can together contain a total of ten marbles --- four red, two green, two blue, one orange and one yellow. Each can contains at least one marble.

The can containing the yellow marble is adjacent to the can containing the orange marble.

The fourth can contains exactly three marbles, of which exactly two are red.

The third can contains exactly two marbles.

Exactly one of the blue marbles is in the second can.

The first can contains no blue marbles.

13. If both green marbles are in the second can, how many marbles does the fifth can contain?

1 marble

14. If the fifth can contains the orange marble and nothing else, which one of the following can possibly be a complete and accurate list of the marbles in the third can?

- (A) two red marbles
- (B) one green marble, and one red marble
- (C) one blue marble and one green marble
- (D) one blue marble, one green marble, and one red marble
- (E) one blue marble and two red marbles

15. If the first can contains three marbles, which of the following CANNOT be true?

- (A) The first can contains a green marble.
- (B) The first can contains a yellow marble.
- (C) The first can contains a red marble.
- (D) The last can contains a yellow marble.
- (E) The last can contains an orange marble.

16. If the fifth can contains exactly two red marbles and one green marble, what is a complete and accurate list of the marbles in the first can?

1 red or 1 green

17. If the orange marble is in the third can and a green marble is in the fourth can, which one of the following must be true?

- (A) The first can contains a green marble.
- (B) The fifth can contains a green marble.
- (C) If the third can contains a green marble, then the fifth can contains a blue marble.
- (D) If the fifth can contains a blue marble, then the third can contains a green marble.
- (E) If the fifth can contains a green marble, then the third can contains a blue marble.

18. If the orange marble must be in the same can as two green marbles, which cans contain no red marbles? Cans 2 and 5

Use the following information to answer items 19 - 24.

Exactly four statues are lined up on the floor of a wax museum, in spaces numbered 1 through 4, from left to right. Two of the statues are of males, while the other two are of females. Two of the statues are of famous athletes, one is of a famous gangster, and the other is of a famous inventor. Exactly one of the four statues glows in the dark.

The statue that glows in the dark is either first or fourth in line.

The second statue is of an athlete.

There is at least one male statue between the two female statues in line.

One of the statues of an athlete glows in the dark.

19. Which must be true of the third statue?

- (A) It is female.
- (B) It is male.
- (C) It is a gangster.
- (D) It does not glow in the dark.
- (E) It glows in the dark.

20. If the fourth statue is male and glows in the dark, then all of the following must be true EXCEPT:

- (A) The first statue is female.
- (B) The third statue is of the inventor.
- (C) The fourth statue is of an athlete.
- (D) The second statue is male.
- (E) There is exactly one statue between the two statues of athletes.

21. If one of the male statues is immediately next to the other male statue in line, then which of the following must be false?

- (A) The statue that glows in the dark is female.
- (B) The statue of the inventor is female.
- (C) The third statue is male.
- (D) Both statues of athletes are male.
- (E) The statue of the gangster is female.

22. If one of the statues of an athlete is immediately next to the other athlete statue, and if the second statue is male, then list all the characteristics that must be true of the first statue.

Athlete, glow in dark, female

23. If the third statue is a female gangster and the first statue is the inventor, then what are the characteristics you know about the fourth statue?

Athlete, male, glow in dark

24. If the statue of the inventor is male and is ahead of the gangster in line, what do you know about the third statue?

gangster, female

APPENDIX C

POST- TEST QUESTIONNAIRE

Instructions: Using the following scale, rate how much you agree or disagree to the following statement.

Strongly disagree	Disagree	Disagree somewhat	Undecided	Agree somewhat	Agree	Strongly agree
1	2	3	4	5	6	7

- 1) I think I did well on the problems.
- 2) I performed better than other students in the same college year as me.
- 3) The test was difficult for me.

APPENDIX D

ACADEMIC IDENTITY SCALE

Using the following scale, please indicate the number that best describes how much you agree with each of the statements below.

Strongly disagree	Moderately disagree	Neither disagree or agree	Moderately agree	Strongly agree
1	2	3	4	5

1. _____ I learn things quickly in English classes
2. _____ Mathematics is one of my best subjects
3. _____ English is one of my best subjects
4. _____ I get good grades in English
5. _____ I have always done well in Math
6. _____ I'm hopeless in English classes
7. _____ I get good grades in Math
8. _____ I do badly in tests of Mathematics

Please indicate the number that best describes your for each of the statements below

Not at all		Somewhat		Very Much
1	2	3	4	5

9. _____ How much do you enjoy math-related subjects?
10. _____ How much do you enjoy English-related subjects?
11. _____ How likely would you be to take a job in a math related field?
12. _____ How much is Math to the sense of who you are?
13. _____ How important is it to you to be good at Math?
14. _____ How important is it to you to be good at English?

Very poor	Poor	About the same	Better than average	Excellent
1	2	3	4	5

15. _____ Compared to other students, how good are you at math?
16. _____ Compared to other students, how good are you at English?

APPENDIX E

NATIONAL IDENTITY SCALE

1) We are all members of different social groups or social categories. Please place a check next to the item that most closely describes your national identity.

- 1) American
- 2) Other (Please explain: _____)

Consider your national identity (as noted in question 1) in responding to the following statements. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale from 1 to 7.

	<div>Not at all</div> <div>somewhat</div> <div>Very Much</div>						
1) I often regret that I belong to my nation.	1	2	3	4	5	6	7
2) Overall, my national identity has very little to do with how I feel about myself.	1	2	3	4	5	6	7
3) In general, I'm glad to be a citizen of my nation.	1	2	3	4	5	6	7
4) The nation I belong to is an important reflection of who I am.	1	2	3	4	5	6	7
5) Overall, I often feel that my nation is not worthwhile.	1	2	3	4	5	6	7
6) My national identity is unimportant to my sense of what kind of a person I am.	1	2	3	4	5	6	7
7) I feel good about the nation I belong to.	1	2	3	4	5	6	7
8) In general, belonging to my nation is an important part of my self-image.	1	2	3	4	5	6	7

APPENDIX F

RACIAL AND ETHNIC IDENTITY SCALE

Please specify your ethnicity:

- 1) Hispanic or Latino
- 2) Not Hispanic or Latino

Please specify your race:

- 1) American Indian or Alaska Native Asian
- 2) Black or African American (goes to MIBI)
- 3) Native Hawaiian or Other Pacific Islander White
- 4) Biracial/Multiracial (specify)
- 5) Other (specify)

Please use the scale below to indicate your agreement with the following statements. Please note that there are no "right" or "wrong" answers these statements; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale from 1 to 7.

	Not at all			Somewhat		Very Much	
1 I often regret that I belong to my racial/ethnic group.	1	2	3	4	5	6	7
2 Overall, my race/ethnicity has very little to do with how I feel about myself.	1	2	3	4	5	6	7
3 In general, I'm glad to be a member of my racial/ethnic group.	1	2	3	4	5	6	7
4 The racial/ethnic group I belong to is an important reflection of who I am.	1	2	3	4	5	6	7
5 Overall, I often feel that my racial/ethnic group is not worthwhile.	1	2	3	4	5	6	7
6 My race/ethnicity is unimportant to my sense of what kind of person I am.	1	2	3	4	5	6	7
7 I feel good about the race/ethnicity I belong to.	1	2	3	4	5	6	7
8 In general, belonging to my race/ethnicity is an important part of my self-image.	1	2	3	4	5	6	7

APPENDIX G

MULTIDIMENSIONAL INVENTORY OF BLACK IDEOLOGY SUBSCALES

Instructions: Using the following scale, rate how much you agree or disagree to the following statement.

Strongly disagree	Disagree	Disagree somewhat	Undecided	Agree somewhat	Agree	Strongly agree
1	2	3	4	5	6	7

Assimilation Subscale:

1. Blacks who espouse separatism are as racist as White people who also espouse separatism.
2. A sign of progress is that Blacks are in the Mainstream of America more than ever before.
3. Because America is predominantly white, it is important that Blacks go to White schools so that they can gain experience interacting with Whites.
4. Blacks should strive to be full members of the American political system.
5. Blacks should try to work within the system to achieve their political and economic goals.
6. Blacks should strive to integrate all institutions which are segregated.
7. Blacks should feel free to interact socially with White people.
8. Blacks should view themselves as being Americans first and foremost.
9. The plight of Blacks in America will improve only when Blacks are in important positions within the system.

Humanist Subscale:

1. Black values should not be inconsistent with human values.
2. Blacks should have the choice to marry interracially.
3. Blacks and Whites have more commonalities than differences.
4. Black people should not consider race when buying art or selecting a book to read.
5. Blacks would be better off if they were more concerned with the problems facing all people than just focusing on Black issues.
6. Being an individual is more important than identifying oneself as Black.
7. We are all children of a higher being, therefore, we should love people of all races.
8. Blacks should judge Whites as individuals and not as members of the White race
9. People regardless of their race have strengths and limitations.

Oppressed Minority Subscale:

1. The same forces which have led to the oppression of Blacks have also led to the oppression of other groups.
2. The struggle for Black liberation in America should be closely related to the struggle of other oppressed groups.
3. Blacks should learn about the oppression of other groups.
4. Black people should treat other oppressed people as allies.
5. The racism Blacks have experienced is similar to that of other minority groups.
6. There are other people who experience racial injustice and indignities similar to Black Americans.
7. Blacks will be more successful in achieving their goals if they form coalitions with other oppressed groups.
8. Blacks should try to become friends with people from other oppressed groups.
9. The dominant society devalues anything not White male oriented.

Nationalist Subscale:

1. It is important for Black people to surround their children with Black art, music and literature.
2. Black people should not marry interracially.
3. Blacks would be better off if they adopted Afrocentric values.
4. Black students are better off going to schools that are controlled and organized by Blacks.
5. Black people must organize themselves into a separate Black political force.
6. Whenever possible, Blacks should buy from other Black businesses.
7. A thorough knowledge of Black history is very important for Blacks today.
8. Blacks and Whites can never live in true harmony because of racial differences.
9. White people can never be trusted where Blacks are concerned.

APPENDIX H

WORD COMPLETION TASK

Below is a list of words with letters missing. As quickly as you can, fill in the blanks to make complete words. Please do not spend time monitoring your responses. Instead, put down the first answer that comes to your mind.

1. B _ E (bye bee)
2. _ _ C E (RACE) *
3. T _ P _ (tape type tips tops taps)
4. D _ _ R (deer door dear)
5. M _ N _ G E (Manage)
6. L A _ _ (LAZY)*
7. T _ _ T E (taste trite)
8. _ R Y (try cry dry fry wry pry)
9. S _ D _ (side soda suds)
10. _ _ A C K (BLACK) *
11. C _ N T _ _ L (central control)
12. B _ _ K (book back beak buck bank bunk bark)
13. L _ _ E (lame line lyre lore love live lose lone like life lake lane lime lope lure)
14. F L _ _ T (flirt fleet float flint)
15. P _ C K (pack pick puck peck)
16. W _ T _ R (water)
17. P _ _ N E (plane prone prune phone)
18. W _ N (won win wan)

19. T _ L _ P H _ _ _ (telephone)
20. BR _ _ _ _ R (BROTHER)*
21. C _ L L (call cell cull)
22. H _ N T (hint hunt)
23. P _ N B _ L L (Pinball)
24. _ _ _ TE (WHITE) *
25. F R _ _ T (fruit front frost)
26. L _ _ O N (lemon)
27. S H _ L _ (shale shall shelf shell shalt)
28. MI _ _ _ _ _ (MINORITY) *
29. S T _ R _ Y (Starry sturdy stormy)
30. A _ E (ate ale axe are age ace aye awe ape)
31. M _ T C _ (match mitch)
32. W E L _ _ _ (WELFARE) *
33. S H _ R E (shore share)
34. B R _ _ Z E (bronze breeze)
35. W _ _ D _ W (Window)
36. C O _ _ _ (COLOR) *
37. A _ T (ant act art apt)
38. V I S _ _ N (vision)
39. C L _ _ R (Clear)

*Race-related words associated with the stereotypes of African Americans.

APPENDIX I

HISTORY FACT RECALL

Please recall as many History facts from this study as you can. Please type the facts with as many details as you can remember in the space below.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____

APPENDIX J

DEMOGRAPHICS INFORMATION

Age:

Gender:

1. Male
2. Female
3. Do not wish to disclose

Classification:

1. freshmen
2. sophomore
3. junior
4. senior
5. senior +

What college(s) did you apply to?

What is your overall GPA (please estimate if you do not know for certain)?

What is your current major and/or minor:

Intended major when first entering college:

If you've taken the SAT

Please indicate your scores: Math: _____

Verbal: _____

If you've taken the ACT

Please indicate your score.

1. Politically I would say I am...

Very Conservative 1 2 3 4 5 6 7 *Very Liberal*

2. What is your Mother's highest level of education?

_____ Elementary School

_____ Middle School

_____ High School

_____ Some college (no degree)

_____ A.A.

_____ B.A./B.S.

_____ Graduate Degree

3. What is your Father's highest level of education?

- ☐ Elementary School
☐ Middle School
☐ High School
☐ Some college (no degree)
☐ A.A.
☐ B.A./B.S.
☐ Graduate Degree

4. Which best describes your socioeconomic status?	Very poor	Poor	Lower middle	Middle class	Upper middle	Wealthy	Very wealthy
	1	2	3	4	5	6	7